

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN**

UNITED STATES OF AMERICA,

Plaintiff,

And

NATURAL RESOURCES DEFENSE
COUNCIL, INC. AND SIERRA CLUB,

Proposed Intervenor-Plaintiffs,

v.

DTE ENERGY COMPANY AND
DETROIT EDISON COMPANY,

Defendants.

Civil Action No.
2:10-cv-13101-BAF-RSW

Judge Bernard A. Friedman

Magistrate Judge R. Steven Whalen

**MOTION FOR LEAVE TO FILE SUPPLEMENTAL DECLARATION (ERRATA) AND
TO FILE EXHIBIT UNDER SEAL AND IN THE TRADITIONAL MANNER**

Pursuant to Local Rules 5.3, 7.1, Paragraph 11 of the Court's Stipulated Protective Order Regarding Confidential Information and Documents (Doc. No. 39), and R18 of the Electronic Filing Policies and Procedures of this Court, Defendants DTE Energy Company and Detroit Edison Company (collectively, "Detroit Edison") respectfully move for leave to:

1. File the Supplemental Declaration of Michael J. King (Errata) (attached);
2. File Supplemental Appendix C to the Supplemental Declaration of Michael J. King under seal; and
3. File Supplemental Appendix C in the traditional manner.

The Supplemental Declaration of Michael J. King (Errata) is being filed in order to correct statements made in the Declaration of Michael J. King, which was filed in support of

Defendants' Opposition to Plaintiff's Motion for Preliminary Injunction, Doc. No. 46, as Exhibit 10. The Supplemental Declaration explains that Mr. King determined, subsequent to the filing of his initial declaration, that some of the information upon which he relied contained incorrect data. He now includes the correct data as Supplemental Appendix C and otherwise states that the new information does not affect any of the findings and conclusions in his initial declaration. However, the corrected information does require changes to some of the numbers and tables in the original declaration, and these changes are reflected in the corrected pages attached to his Supplemental Declaration.

In addition, the information contained in Supplemental Appendix C is being filed under seal and by traditional means because Defendants or certain non-parties consider this data sensitive business or other confidential information, and because the exhibit is a CD-ROM that cannot be authentically converted to PDF format for electronic filing.

For the foregoing reasons, the undersigned respectfully request that this Court grant the Defendants leave to file the Supplemental Declaration of Michael J. King and leave to file the exhibit to this Supplemental Declaration, Supplemental Appendix C, under seal and in the traditional manner.

Counsel for Plaintiff consents to filing the Supplemental Declaration and Supplemental Appendix C, the latter under seal and in the traditional manner.

Respectfully submitted, this 12th day of November 2010.

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing **MOTION FOR LEAVE TO FILE SUPPLEMENTAL DECLARATION (ERRATA) AND TO FILE EXHIBIT UNDER SEAL AND IN THE TRADITIONAL MANNER** was electronically filed with the Clerk of Court using the CM/ECF system, which will automatically send email notification of such filing to the following attorneys of record:

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This 12th day of November, 2010.

/s/ F. William Brownell

EXHIBIT 10
TO DETROIT EDISON'S
OPPOSITION TO
PLAINTIFF'S MOTION
FOR PRELIMINARY
INJUNCTION
(SUPPLEMENT)

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN**

UNITED STATES OF AMERICA,

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NATURAL RESOURCES DEFENSE COUNCIL,
INC. AND SIERRA CLUB,

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DTE ENERGY COMPANY and
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**Supplemental Declaration of Michael J. King
(Errata)**

I, Michael J. King, declare as follows:

1. It has come to my attention that some of the information related to Detroit Edison's 2009 PSCR PROMOD Run (2009 PSCR Run) and the "re-run" of the 2009 PSCR Run that were provided to me and upon which I relied for my declaration in this case dated November 2, 2010 was incorrect. Specifically, (1) some of the information related to the 2009 PSCR Run, which is contained in the folder entitled "2009 PSCR filing from Sept 2008" on the CD submitted as Appendix C of my November 2 declaration, inadvertently contained files related to a draft, not the final, 2009 PSCR Run; and (2) the file entitled "Gen Report - 2009 PSCR MON2 FGD 2014.xls" inadvertently contained the correct output for Monroe Unit 2 generation and capacity factors for the re-run, but contained other incorrect data.
2. Upon discovering these errors, I immediately requested the correct information, which is contained in the attached CD entitled "Supplemental Appendix C." I have reviewed this information, and I have concluded that it does not affect any of the findings and conclusions in my November 2 declaration.
3. Although the correct information does not affect my conclusions, it requires changes related to some of the numbers and tables in my November 2 declaration, and these changes are reflected in the corrected pages attached hereto.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 11, 2010



Michael J. King

CORRECTED PAGES

Table IV-1 Annual Utilization Factors for Monroe Unit 2 (2005-2009)

Year	Utilization Factor
2005	86.0%
2006	81.3%
2007	87.6%
2008	81.1%
2009	83.5%

Table IV-2 Baseline Utilization Factors for Monroe Unit 2

Baseline Period	Utilization Factor
May 2005 - April 2007	84.3%
October 2006 - September 2008	85.9%
July 2006 - June 2008	86.2%

44. Further, Monroe 2 is not anticipated to fulfill either of these two conditions in the future. As discussed in more detail below, Detroit Edison has constructed projections of the future operations of its facilities, including Monroe 2, for the purpose of the PSCR process conducted by the Commission. Detroit Edison projected the future utilization of the annual generation capacity of Monroe 2 in the projections used for the 2009 and 2010 filings.¹⁰ The projected utilization factors for these forecasts are presented in Table IV-3.

Table IV-3 Projected Utilization Factors for Monroe Unit 2

Year	2009 PSCR	2010 PSCR
2010	80.1%	87.8%
2011	80.5%	89.3%
2012	74.9%	90.3%
2013	73.5%	92.4%

45. As is readily apparent, Monroe 2 has neither historically satisfied, nor is it projected to satisfy, either of the conditions that would lead to a presumption that an increase in

¹⁰ In both of these projections, the assumed performance characteristics (including Random Outage Rate (ROR) and availability) of Monroe 2 are very similar. The differences between the utilization factors for the 2009 and 2010 runs are not related to the project, but rather are a reflection of the Company's market conditions unrelated to the project.

VII. THE 2009 PSCR PROMOD RUN COMPARED TO THE 2010 PSCR PROMOD RUN

76. To take a closer look at both Mr. Biewald's approach and conclusions and to examine the other factors that should be considered that are unrelated to the project, I reviewed Detroit Edison's 2009 PSCR PROMOD Run (2009 PSCR Run) and compared it to the 2010 PSCR PROMOD Run (2010 PSCR Run), which was the basis for the projections shown in Table 1 of the Company's Outage Notification. The 2009 PSCR Run was prepared in the fall of 2008 for the 2009 PSCR filing.
77. The calculation of emissions and emission rates at Monroe 2 is not straightforward given the shared stack between Monroe units 1 and 2. In order to remove this confounding factor from my discussion, I will focus on generation (also described as a capacity factor) similar to Mr. Biewald's discussion. Since the same emission rate can be applied both pre- and post-project (i.e., the project had no impact on emission rates) to compare emissions (the Monroe Unit 2 project is not one of a type that would affect emissions rate, and there is no claim that it does), any conclusions drawn from a comparison of generation (and the related heat input values) should generally result in a similar conclusion with respect to emissions.¹⁷ Therefore, my discussion will focus on projected generation.

A. Random Outage Rates and Equivalent Availability Factors

78. The RORs for the 2009 PSCR Run for Monroe 2 were assumed to be lower than the RORs assumed for the 2010 PSCR Run for 2012 and 2013. Table VII-1 shows a comparison of the ROR assumptions for each run.¹⁸

¹⁷ A change in heat rate could also impact the emissions calculation. Based on my review of the PROMOD inputs and discussions with the Company, the heat rate curve assumptions for the 2009 and 2010 PSCR Runs were very similar.

¹⁸ The values shown in the table reflect the PROMOD outputs and may differ slightly from the PROMOD inputs due to the probabilistic nature of the PROMOD model.

Table VII-1 Random Outage Rates for Monroe 2

Year	2009 PSCR	2010 PSCR
2011	9.4%	8.3%
2012	8.5%	8.7%
2013	8.3%	8.7%

79. Planned outage assumptions are the other part of the EAF equation so we need to compare those inputs as well to have a complete picture of the unit's projected availability. The 2009 PSCR Run was re-run assuming the same planned outage factors as assumed in the 2010 PSCR Run so that the difference in the EAFs between the two runs was due only to the differences in ROR assumptions.¹⁹ Table VII-2 shows the EAFs from the PROMOD output for the two runs. As shown in the table, the EAFs in the 2009 PSCR (re-run) Run are higher than the EAFs in the 2010 PSCR Run for 2012 and 2013.

Table VII-2 Equivalent Availability Factors for Monroe 2

Year	2009 PSCR	2010 PSCR
2011	90.6%	91.7%
2012	84.7%	84.4%
2013	89.7%	89.3%

80. Applying Mr. Biewald's approach, one would expect that, since the EAF's in the 2009 PSCR Run are higher than in the 2010 PSCR Run for 2012 and 2013, the increase in availability will have a direct impact on generation, and there will be an increase in projected generation for Monroe 2 in the 2009 PSCR Run as compared to the 2010 PSCR Run. In fact, the 2009 PSCR Run has considerably lower projected generation than the 2010 PSCR Run. A comparison of projected generation and capacity factor is shown in Table VII-3. The difference in EAFs between the two runs (2009 vs. 2010) is -1.1%, +0.3%, and +0.4% respectively for 2011, 2012, and 2013. The difference in capacity factor is -10.5%, -14.6%, and -18.7% respectively.

¹⁹ The 2009 PSCR Run assumed a scrubber installation for Monroe Unit 2 in 2013, which was represented by a higher planned outage factor in 2013. In order to remove the impact of this planned outage in the 2009 run as compared to the 2010 run, I requested the Company re-run the 2009 run with the same planned outage factor assumptions as the 2010 run. All other assumptions were unchanged. References to the 2009 PSCR Run hereafter are to the 2009 re-run.

Table VII-3 Comparison of Generation and Capacity Factor

Year	2009 PSCR Run		2010 PSCR Run	
	Generation (GWh)	Capacity Factor (%)	Generation (GWh)	Capacity Factor (%)
2011	4,975	71.4%	5,700	81.9%
2012	4,299	61.6%	5,322	76.2%
2013	4,442	63.8%	5,748	82.5%

81. There is a significant difference in the projected generation for Monroe 2 between the 2009 PSCR Run and the 2010 PSCR Run that cannot be explained by the difference in assumed availability (or EAF) given that the differences have opposite signs, i.e., in the years with higher projected availability, the projected generation is significantly lower. Therefore, in this example we may not conclude that “a decreased forced outage rate means an increased EAF, and the increased EAF will result in a higher capacity factor for the unit,” as Mr. Biewald posits.²⁰ The model runs show the exact opposite of Mr. Biewald’s presumption.

B. System Demand

82. Mr. Biewald correctly points out that “[t]here are other factors besides the EAF that can indirectly influence the capacity factor of a generating unit.”²¹ Mr. Biewald examines system demand as a possible factor.
83. I too examined the Detroit Edison system demand, or the customer energy requirements in the utility’s control area, in the 2009 PSCR Run and the 2010 PSCR Run to see if this may explain the differences in projected generation for Monroe 2 between the two runs. Mr. Biewald concludes that an increase in generation “cannot reasonably be attributed to increases in demand [when system demand] is dropping,” and he shows the Company’s forecast of system demand for 2009 – 2014 (described in GWh) compared to the Company’s actual demand for the period 2003 – 2008 as decreasing.²² I compared the

²⁰ Biewald Decl. ¶ 18.

²¹ *Ibid.* ¶ 19. I disagree only with his use of the adjective “indirectly,” as many of these factors directly affect the capacity factor of the unit.

²² *Ibid.* ¶¶ 20-21.

dispatch of the unit, which may explain the difference we see in the projected generation between the two runs.

Table VII-7 Comparison of Monroe 2 Projected Fuel Costs (\$/MWh)

Year	2009 PSCR Run	2010 PSCR Run
2011	\$ 40.58	\$ 27.48
2012	\$ 41.25	\$ 28.78
2013	\$ 41.52	\$ 29.40

3. Emission Allowance Prices

90. The cost of emission allowances is included in the dispatch cost of a generating unit.²⁴ Depending on the generator, the projected cost of emission allowances for SO₂, NO_x, and CO₂ may be included in the dispatch cost of the unit. Forward prices for allowances are dependent on current regulations and potential changes in future environmental policies. Significant changes and uncertainty in the NO_x and the SO₂ markets over the period of 2008-2009 are reflected by the very different assumptions the Company used in the 2009 PSCR Run as compared to the 2010 PSCR Run. In addition, in the 2009 PSCR Run, the Company assumed that a CO₂ cap and trade program would be in place by 2012 and included projections of CO₂ allowances in their assumptions. In the 2010 PSCR Run, the Company did not assume a CO₂ cap and trade program would be in place over the 5 year period of the PSCR filing. For coal-fired units like Monroe 2, the additional cost of CO₂ allowances increases the projected dispatch cost and may impact the projected dispatch or generation of the unit. Depending on the interplay of the assumed fuel prices and the mix of units in the market, the cost of emission allowances may also result in a “reordering” of the supply stack, impacting market prices and the dispatch profile of the individual generating units in the market. A comparison of the projected dispatch costs for Monroe 2 is included in Table VII-8. We see in Table VII-8 a significant increase in the projected dispatch cost of Monroe 2 in 2012 and 2013 of the 2009 PSCR Run. This increase is due to the assumption of a CO₂ cap and trade program and the projected cost of CO₂ allowances (determined by the heat rate of the unit, the CO₂ emission rate, and the CO₂

²⁴ The assumption is that there is an opportunity cost for the allowance. The generator may have to purchase an allowance, or, if it has an inventory of allowances, that allowance could be sold at the market price.

allowance price). The dispatch price of Monroe 2 in the 2010 PSCR Run is 46% lower in 2011 and 57% lower in 2012 and 2013 as compared to the 2009 PSCR Run.

Table VII-8 Comparison of Monroe 2 Projected Dispatch Costs (\$/MWh)

Year	2009 PSCR Run	2010 PSCR Run
2011	\$ 54.74	\$ 29.82
2012	\$ 71.64	\$ 30.91
2013	\$ 74.04	\$ 31.61

4. System Generation and Unit Demand

91. All of the factors I have discussed play a role in determining the least-cost or most cost-effective generation to meet the projected requirements of Detroit Edison's customers. In addition to operating their own generation units, Detroit Edison can purchase electricity from the market when market prices are lower than the dispatch cost of the Company's generators, and Detroit Edison can sell to the market when the dispatch costs of the Company's generators are lower than the market price. Table VII-9 shows the projected system dispatch costs for Detroit Edison's generation for the 2009 and 2010 PSCR Runs. Depending on the relationship of Detroit Edison's generators to the forward market price of electricity, I would expect to see reasonably different generation profiles for the individual Detroit Edison units between the two PSCR Runs.

Table VII-9 Comparison of Detroit Edison System Projected Dispatch Costs (\$/MWh)

Year	2009 PSCR Run	2010 PSCR Run
2011	\$ 38.02	\$ 25.77
2012	\$ 51.18	\$ 27.36
2013	\$ 52.01	\$ 28.02

92. In examining the 2009 PSCR Run and 2010 PSCR Run, we see differences in Detroit Edison's total generation as a relationship to its total customer requirements (or system demand). Table VII-10 shows a comparison of the annual ratio of total generation to total requirements (in %) for the two runs. In the 2009 PSCR Run, where market prices were projected to be significantly higher than in the 2010 PSCR Run, the ratio of Detroit Edison generation to system demand is less than 100%, which indicates Detroit Edison

forecast it would be a net purchaser from the market (i.e. Detroit Edison would purchase electricity to meet their system requirements and/or purchase a greater quantity of electricity from the market than they sold to the market). In the 2010 PSCR Run, we see the opposite, with ratios greater than 100% indicating that Detroit Edison forecast it would be a net seller to the market.

Table VII-10 Comparison of Ratio of System Generation to System Requirements (%)

Year	2009 PSCR Run	2010 PSCR Run
2011	95%	108%
2012	89%	106%
2013	91%	109%

93. At the individual generator level there may also be differences with respect to the unit's contribution to the total generation of the system. I will call this the "unit demand," and it is derived by taking the ratio of the individual unit generation to the total Detroit Edison system generation. Given varying assumptions used to derive units' projected dispatch costs (efficiency, fuel, variable operations and maintenance, emission costs, etc.), individual unit demand may vary. For example, if a particular unit's dispatch costs are projected to increase due to the inclusion of higher emission allowance costs, this unit may be projected to dispatch less, and another unit (that had no changes made to its projected dispatch cost) may be projected to dispatch more, resulting in greater unit demand. A comparison of the unit demand for Monroe 2 for the two PSCR Runs is shown in Table VII-11. The unit demand in the 2010 PSCR Run is slightly higher than in the 2009 PSCR Run, which may be attributable to an increase in demand on Unit 2 due to changes in system or market assumptions.

- 1 Plaintiff's Motion for Preliminary Injunction, *United States v. DTE Energy Co.*, No. 2:10-cv-13101-BAF-RWS (E.D. Mich. Aug. 6, 2010)
- 2 Declaration of Robert Koppe, Exhibit 5 to the Memorandum in Support of Plaintiff's Motion for Preliminary Injunction, *United States v. DTE Energy Co.*, No. 2:10-cv-13101-BAF-RWS (E.D. Mich. Aug. 6, 2010)
- 3 Declaration of Ranajit (Ron) Sahu, Exhibit 3 to the Memorandum in Support of Plaintiff's Motion for Preliminary Injunction, *United States v. DTE Energy Co.*, No. 2:10-cv-13101-BAF-RWS (E.D. Mich. Aug. 6, 2010)
- 4 Declaration of Bruce E. Biewald, Exhibit 8 to the Memorandum in Support of Plaintiff's Motion for Preliminary Injunction, *United States v. DTE Energy Co.*, No. 2:10-cv-13101-BAF-RWS (E.D. Mich. Aug. 6, 2010)
- 5 57 Federal Register 32,314, 32,323 (July 21, 1992)
- 6 67 Federal Register 80,186 (December 31, 2002)
- 7 73 Federal Register 10,367 (March 8, 2007)
- 8 Mich. Admin. Code R. 336.2801(II)(ii)(C); 40 C.F.R. § 52.21(b)(41)(ii)(c)
- 9 Expert Report of Michael J. King on Behalf of Defendant AEP Companies, In The United States District Court For The Southern District Of Ohio Eastern Division, Civil Action No. C2-99-1182 *United States of America v. American Electric Power Service Corp., et al.*, Civil Action No. C2-99-1250 *Ohio Citizen Action, et al. v. American Electric Power Service Corp., et al.*
- 10 *United States of America v. Cinergy Corporation*, Nos. 09-3344, 09-3350, 09-3351 (7th Circuit October 12, 2010)
- 11 2009 PSCR filing from Sept 08 (See CD in Appendix C)
- 12 2010 PSCR filing from Sept 09 (See CD in Appendix C)
- 13 MON2.xls (See CD in Appendix C)
- 14 MONPP2 NSR Records.xls (See CD in Appendix C)
- 15 Gen Report - 2009 PSCR MON2 FGD 2014.xlsx (See CD in Appendix C)
- 16 Annual Gen Report - 2010 PSCR_09-10-09.xlsm (See CD in Appendix C)
- 17 Forecasted Control Equipment Monroe.xlsx (See CD in Appendix C)
- 18 2011 PSCR.zip (See CD in Appendix C)
- 19 Transcript of Bench Trial, Day 2, *Pennsylvania Dep't of Env'tl. Prot. v. Allegheny Energy, Inc.*, No. 2:05-cv-00885-GLL (W.D. Pa. Sept. 14, 2010)
- 20 Transcript of Bench Trial, Day 3, *Pennsylvania Dep't of Env'tl. Prot. v. Allegheny Energy, Inc.*, No. 2:05-cv-00885-GLL (W.D. Pa. Sept. 20, 2010)
- 21 Transcript of Bench Trial, Day 4, *Pennsylvania Dep't of Env'tl. Prot. v. Allegheny Energy, Inc.*, No. 2:05-cv-00885-GLL (W.D. Pa. Sept. 21, 2010)
- 22 Transcript of Bench Trial, Day 5, *Pennsylvania Dep't of Env'tl. Prot. v. Allegheny Energy, Inc.*, No. 2:05-cv-00885-GLL (W.D. Pa. Sept. 22, 2010)
- 23 Transcript of Bench Trial, Day 8, *Pennsylvania Dep't of Env'tl. Prot. v. Allegheny Energy, Inc.*, No. 2:05-cv-00885-GLL (W.D. Pa. Sept. 28, 2010)
- 24 Exhibit DTX 1792
- 25 Exhibit DTX 1737
- 26 Exhibit DTX 1828
- 27 Exhibit DTX 1829
- 28 2009 PSCR Re-Run.zip
- 29 2009 PSCR Run (Original wCAIR).zip

**SUPPLEMENTAL APPENDIX C:
ADDITIONAL ELECTRONIC DOCUMENTS CONSIDERED
(FILED UNDER SEAL)**